TVW Immunisation Training and Competency Framework for Neonatal Healthcare Staff

Original document: H Stewart (Sr Outreach UHS) & K Edwards (TVW Neonatal Lead Nurse)
Review & update: S Barlow (Lead Educator, RBH) & S Hill (TVW Neonatal Educator)
September 2024

THAMES VALLEY & WESSEX
NEONATAL NETWORK

TVW Immunisation Training and Competency Framework for Neonatal Healthcare Staff

This document is intended as a guidance for TVW educators to support their neonatal healthcare staff immunisation training. It has been divided in five parts:

- Part 1: Overview of training requirements-guidance for educators
- Part 2: Immunisation training pathway for neonatal staff
- Part 3: Immunisation schedule
- Part 4: Example of Pre & Post-Immunisation check list
- Part 5: Competency assessment tool

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PART 1: Framework for Immunisation training-guidance for educators

Background information

Immunisation is one of the most successful public health interventions, protecting children and adults and saving thousands of lives every year. Ensuring ongoing public and professional confidence is critical to the success of these programmes. As the incidence of vaccine preventable diseases declines due to the success of immunisation programmes, healthcare practitioners need to be able to explain why vaccinations are still so important. In a climate where frequent changes are made to the vaccine programmes and electronic media facilitates the rapid spread of any vaccine concerns or controversies, public awareness and confidence in vaccines may waver. Evidence shows that healthcare practitioners are extremely important in communicating information about vaccination and are highly trusted by parents, a trust that has increased in recent years. Both this trust, and the advice given by healthcare practitioners, appear to be key factors influencing parental decisions about immunisation.

A high level of knowledge and a positive attitude to immunisation in healthcare practitioners are widely acknowledged as being important determinants in achieving and maintaining high vaccine uptake. It is therefore vital that immunisers are confident, knowledgeable and up to date. Good foundation training and regular updates must be provided and undertaken to achieve this – a recommendation also made by NICE (National Institute of Clinical Excellence) and the SSAGE (Strategic Advisory Group of Experts) working group on vaccine hesitancy (TVW, 2019).

Therefore, it is essential that nurses, and within this context neonatal nurses, are trained and skilled in all aspects of immunisation. With the increasing complexity of extreme premature neonates, many are still resident within neonatal units at the time of their routine childhood immunisations and may require additional vaccinations such as RSV (Respiratory Syncytial Virus) vaccine or Hepatitis B. Neonatal nurses, therefore need to be in a position to give clear, consistent, accurate advice and be able to explain to parents/carers the benefits and risks of vaccine appropriately and effectively.

The National minimum standards and core curriculum for immunisation training for registered healthcare professionals (PHE, 2018) sets out the requirements for the knowledge and skills required for those involved in the immunisation programmes. These standards also apply to Nursing Associates (RCN, 2019). According to these standards the provider has a duty to ensure that contracted staff are fully competent and trained in accordance with these national standards. In addition, it states that commissioners must ensure that the provider adheres to the requirement that *'professionals involved in administering the vaccine have the necessary skills, competencies and annually updated training with regard to vaccine administration'* and that providers (employers) should make regular training and development routinely available for their staff. Training is therefore an essential requirement included as a core element in immunisation contracts and service specifications. Furthermore, the Health and Social Care Act 2008 reports *that 'Persons employed by the service provider in the provision of a regulated activity must…receive such appropriate support, training, professional development, supervision and appraisal as is necessary to enable them to carry out the duties they are employed to perform'*.

The following table has been extracted from the 'National Minimum Standards and Core Curriculum for Immunisation Training for Registered Healthcare Practitioners' (Public Health England, 2018)

Standards for Immunisation Training for registered healthcare practitioners

	STANDARD
The Practitioners	Any registered healthcare practitioner who advises on and/or administers immunisations must have received specific relevant foundation training and have been assessed as competent by a registered practitioner who is experienced, up to date and competent in immunisation. They should only administer or advise on immunisations if they feel competent to do so
The requirement to be trained and supervised	Those new to immunisation should receive comprehensive foundation immunisation training, either through a face-to-face taught course or a blended approach of both e-learning and a face-to-face taught course. New immunisers should also have a period of supervised practice and support with a registered healthcare practitioner who is experienced, up to date and competent in immunisation.
The requirement to be assessed	Both knowledge and clinical competence should be assessed before new immunisers start to give and/or advise about vaccines.
The training content	The content of the foundation training should include all the core areas of knowledge listed in Table Two. The content of update courses should include the recommended areas listed in Table Three.
Duration of Foundation Training	The duration of foundation immunisation training will depend on the previous experience, knowledge and skills of the immuniser, their role in immunisation National Minimum Standards and Core Curriculum for Immunisation Training and the vaccine(s) they are to advise on and/or administer. The recommended minimum duration of foundation immunisation training for practitioners who advise on or administer the routine national schedule (e.g., Practice Nurses, Health Visitors) is two days (or 10 hours e-learning) in order to achieve all the learning outcomes.
Frequency and duration of updates	Annual updates should be provided. More frequent updates may be required if substantial changes to programmes or policies are made or new vaccines are introduced. To include all necessary information, update training is likely to need a minimum of half a day for those delivering the routine national immunisation schedule.
Access to national policies and updates	All practitioners with a role in immunisation should have access to: i) national guidance including the online version of Immunisation against Infectious Disease (the 'Green Book') ii) the monthly national immunisation newsletter Vaccine Update which describes the latest developments in vaccines, vaccination policies and procedures
Access to advice and support	All practitioners involved in immunisation should know who to contact for expert immunisation advice and support. When new to immunisation, they must have an identified supervisor who is an appropriately trained, experienced and knowledgeable practitioner in immunisation. The supervisor should ensure the new immuniser's training and practice meets national standards and reflects current national policy.
Compliance	Those responsible for provision of the immunisation service (the employer) should ensure that all staff administering or advising on immunisations have received training that meets these national standards. Commissioners should ensure that providers are able to confirm that their immunisers have been trained and assessed.

Table 2 - Core Areas of Immunisation Knowledge

1. The aims of immunisation, national vaccine policy and schedules
2. The immune response to vaccines and how vaccines work
3. Vaccine preventable diseases
4. The different types of vaccines, their composition and the indications and contraindications
5. Current issues in immunisation
6. Communicating with patients, parents and carers about vaccines
7. Legal issues in immunisation
8. Storage and handling of vaccines
9. Correct administration of vaccines
10. Anaphylaxis and adverse reactions
11. Documentation, record keeping and reporting
12. Strategies for optimising immunisation uptake

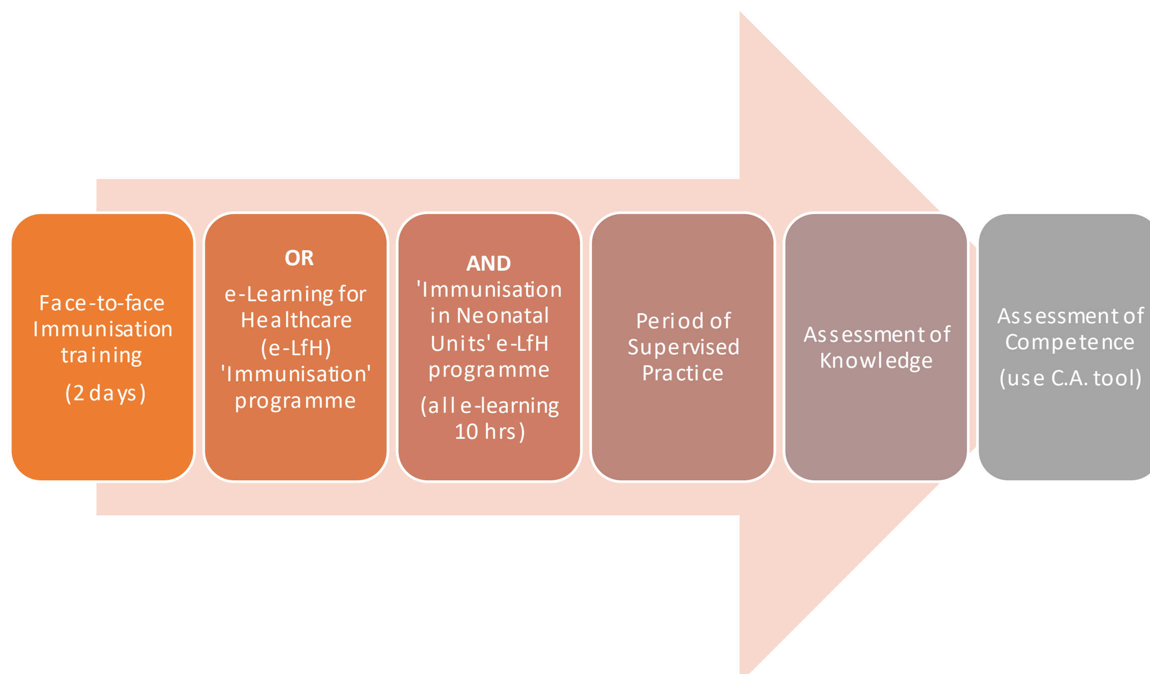
Table 3 - Topics to include in immunisation updates

1. Current issues in immunisation
2. Recent epidemiology of vaccine preventable disease
3. Any changes to vaccine recommendations or national policy
4. Update on vaccine ordering, storage and administration
5. Any changes to legislation relevant to vaccination
6. Review of current practice, recent vaccine incidents and identification of areas for improvement
7. Q&A session for problems encountered in practice

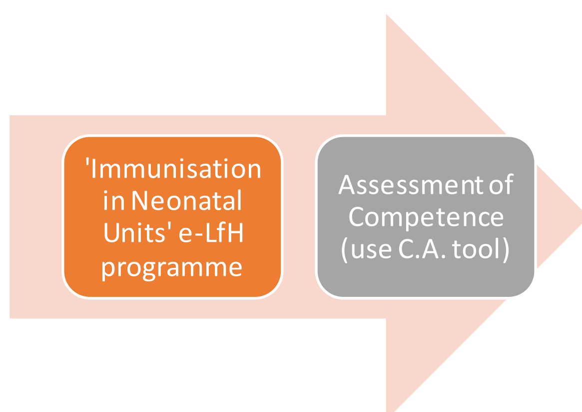
PART 2: Immunisation training pathway for neonatal staff

DISCLAIMER: The Thames Valley and Wessex Neonatal ODN, in accordance with current evidence, proposes the following immunisation training pathway and yearly training updates for neonatal registered staff who administer vaccinations. It is advised that unit educators review these recommendations with their own Trust Immunisation teams.

Immunisation Foundation Training Pathway for neonatal staff



Immunisation training-Yearly updates



Assessment of knowledge

Following training, practitioners' knowledge should be assessed and recorded by those delivering training. This can be done via the e-LfH training or a combination of different ways, for example:

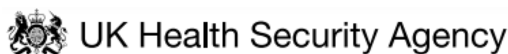
- a short answer or multiple-choice answer test
- scenario-based questions
- oral question and answer test
- a reflective log or diary of events
- a personal portfolio of learning events

Assessment of clinical competency

Prior to starting immunisations, it is recommended that all new immunisers should spend time with an experienced registered practitioner who has undertaken training that meets the national minimum standards and is experienced in advising about immunisation and giving vaccines. The new immuniser should have the opportunity in these sessions to observe and discuss relevant issues with the experienced practitioner. Those new to their role in immunisation should also demonstrate an appropriate standard of practice to their supervisor. This supervised practice should be structured and robust and follow a clear, comprehensive checklist so each step of the consultation is considered. The competency checklist should be used for formal assessment and sign-off of the practitioner's clinical competency in immunisation. A copy of the completed checklist should be retained in the practitioner's personnel file (PHE, 2018).

Part 3: Immunisation schedule

The tables below are extracts of the Complete routine immunisation schedule and selective immunisation programmes (displays up to 16 weeks old only). *Please check the UK Health Security Agency website for up to date and complete childhood immunisation programmes.*



The complete routine immunisation schedule — From September 2023

Age due	Diseases protected against	Vaccine given and trade name		Usual site[1]
Eight weeks old	Diphtheria, tetanus, pertussis (whooping cough), polio, *Haemophilus influenzae* type b (Hib) and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	Meningococcal group B (MenB)	MenB	Bexsero	Left thigh
	Rotavirus gastroenteritis	Rotavirus[2]	Rotarix[2]	By mouth
Twelve weeks old	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	Pneumococcal (13 serotypes)	Pneumococcal conjugate vaccine (PCV)	Prevenar 13	Thigh
	Rotavirus	Rotavirus[2]	Rotarix[2]	By mouth
Sixteen weeks old	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	MenB	MenB	Bexsero	Left thigh

Selective immunisation programmes

Target group	Age and schedule	Disease	Vaccines required
Babies born to hepatitis B infected mothers	At birth, four weeks and 12 months old[1,2]	Hepatitis B	Hepatitis B (Engerix B/HBvaxPRO)
Infants in areas of the country with TB incidence >= 40/100,000	Around 28 days old[4]	Tuberculosis	BCG
Infants with a parent or grandparent born in a high incidence country[3]	Around 28 days old[4]	Tuberculosis	BCG
Children in a clinical risk group	From 6 months to 17 years of age	Influenza	LAIV or inactivated flu vaccine if contraindicated to LAIV or under 2 years of age
Pregnant women	At any stage of pregnancy during flu season	Influenza	Inactivated flu vaccine
	From 16 weeks gestation[5]	Pertussis	dTaP/IPV (Boostrix-IPV)

RSV immunisation (Synagis® (palivizumab)) programme may be subject to changes and it is advised to follow the Department of Health and Social Care recommendations. The information on the table below has been extracted from the Green Book Chapter 27a (HAS, 2015)

Age and schedule	Target group	Disease protected against	Vaccine and trade name	Usual Site
Start of the RSV season (calendar week 40). 24-48 hours prior to discharge. Subsequent doses administered monthly throughout RSV season up to a maximum of five doses.	High risk due to Bronchopulmonary Dysplasia (BPD), Congenital Heart Disease (CHD) or Severe Combined Immunodeficiency Syndrome (SCID)	Respiratory syncytial virus (RSV)	Synagis® (Palivizumab)	IM Preferably in a different limb if given with other immunisations

Part 4: Example of Pre & Post-Immunisation Checklist

PRE-IMMUNISATION CHECKLIST		
TOPIC	DATE	SIGNATURE
Discussed with Medical team if baby is considered fit for immunisations.		
Immunisations have been prescribed		
Identify if First (8w)/Second (12w) /Third (16w) set of immunisations		
Parents have been given written information: *A quick guide to childhood Immunisations for the parents or premature babies*– DoH (Record date of leaflet publication)		
Written/verbal parental consent has been obtained and documented.		
If required, Paracetamol has been prescribed.		

POST-IMMUNISATION CHECKLIST		
TOPIC	DATE	SIGNATURE
When administering MenB vaccine, paracetamol MUST be given: 1st dose (at the time of immunisation), 2nd dose (4-6 hours after dose 1) and 3rd dose (4-6 hours after dose 2)		
Immunisations have been given as prescribed.		
Apnoea monitor is in place.		
Documentation recorded : Vaccine, dose, site, batch number, expiry date and date of injection .		
Medicines chart completed		
Update Badgernet Database.		
Patient notes: - Discharge page - Continuation sheet		
- Parent held records (red Book): - Complete and send to:		

Part 5: Competency Assessment Tool (C.A. tool) for registered health care professionals

Relevant competencies specific to neonatal units, have been extracted from the National Minimum Standards for Immunisation Competency Assessment Tool

- **Vaccinators:** those practitioners administering immunisations should be assessed against all competencies.
- **Practitioner to complete self-assessment column**: practitioners are stating that they feel competent in their role and have the necessary knowledge and skills.
- **Supervisor:** The supervisor assessing the practitioner must be a registered healthcare practitioner who is competent and experienced in delivering immunisation programmes. The supervisor should:
  - review the practitioner's self-assessment, discussing any areas that are identified as 'need to improve' and the relevant action plans
  - observe their performance as they provide immunisations/advice to several patients and indicate whether each competency is 'met' or 'needs to improve' in the supervisor review column
  - if improvement is needed, help the immuniser to develop an action plan that will enable them to achieve the required level of competence with a review date for further assessment
  - when the supervisor and practitioner agree that the practitioner is competent in all the relevant areas, sign off the section at the bottom of the assessment.

The competency statements are arranged into three parts:

Part One: Knowledge

Part Two: Core skills for immunisation

Part Three: Clinical processes and procedures

Where the practitioner is only assessed to deliver specific vaccines, state the vaccines they have been assessed for:

1. ....
2. ....
3. ....
4. ....
5. ....
6. ....

**Please note that the administration of BCG vaccines is not normally done in neonatal units. Local systems ensure referrals are sent to the local BCG administration team who will contact the parents and arrange for the BCG vaccine to be administered.*

IMMUNISATION COMPETENCY ASSESSMENT (C.A.) TOOL

	Competency Assessment Tool: Registered Staff - For staff registered on a professional register such as NMC , GMC, HCPC, GPhC	Self-Assessment: Met (M) or needs to improve (NI) (initial/date)	Assessment by supervisor Met (M) or needs to improve (NI) (sign/date)	Record action plan for any assessed as 'needs to improve' (as agreed with supervisor)
	Part 1: Knowledge	**Self-Assessment**	**Supervisor review**	**Action Plan**
1a	Can provide evidence of attendance at a specific, comprehensive immunisation training course and/or completion of an immunisation e-learning course. The course should cover all of the topics detailed in the core curriculum for immunisation training (state the name of course/type of training attended). NB: where immunisers are giving specific vaccines, such as for travel, specific training and assessment in these areas would also be needed			
1b	Has successfully completed a knowledge assessment e.g., an e-learning course assessment, end of course test.			
1c	Able to access the online Green Book and is aware of the electronic update nature of this publication.			
1d	Able to access other relevant UK immunisation guidance e.g., DHSC/PHE/UKHSA/NHS E&I letters, Vaccine Update, PHE information for health care practitioners' documents on new or revised vaccine programmes, the PHE/ UKHSA algorithm for persons with unknown or uncertain immunisation status, or other resources where appropriate			
1e	Knows who to contact for advice if unsure about vaccination schedules, vaccine spacing and compatibility, eligibility for vaccines or if a vaccine error occurs. (e.g., local screening and immunisation team, local health protection team or other locally available immunisation lead).			
1f	Able to access current information on other countries' schedules if required (e.g., WHO or ECDC websites) and can advise patients and/or parents/carers if any additional vaccines are needed.			
1g	Able to discuss the relevant national and local immunisation programmes and the diseases for which vaccines are currently available. Aware of programmes for specific clinical risk groups and use of vaccination in outbreak situations. Knows where to refer to if vaccines are not available locally (e.g., BCG or travel vaccines).			
1h	Is able to advise on appropriate safe, timely administration of the vaccine(s) required by the patient.			
1i	Understands the different types of vaccine, is able to state which vaccines are live and which are inactivated and is aware of the different routes of administration e.g., injected, intranasal or oral.			
1j	Able to explain the general principles of immunisation e.g., why multiple and/or booster doses are required, why intervals need to be observed between doses and why certain vaccines e.g., influenza, needs to be given annually.			
1k	Aware of local and national targets for immunisation uptake and why vaccine uptake data is important. If appropriate, know where to find data for their area of practice.			

	Part 2: Core Skills for Immunisation	Self-Assessment	Supervisor review	Action Plan
2a	Is up to date with local requirements for anaphylaxis and CPR training (normally recommended annually).			
2b	Demonstrates awareness of the whereabouts of anaphylaxis and emergency care equipment and ensures this has been checked and is up to date, how and when to use it and the follow-up care required.			
2c	Can explain incident response and reporting process in case of a procedural error, needlestick injury, etc. as per local protocol.			
2d	Demonstrates good practice in hand hygiene and relevant infection prevention and control. Uses appropriate aseptic technique when preparing vaccines and handling injection equipment (e.g., syringes, needles) to prevent contamination and infection.			
2e	Disposes of sharps, vaccine vials and other vaccine equipment safely, in line with local protocol.			
2f	Demonstrates knowledge and understanding of the rationale for, and importance of, maintaining the vaccine cold chain. Familiar with local protocols for cold chain management and the action to be taken in case of cold chain failure and who to contact.			
	Part 3: Clinical Processes and Procedures	**Self-Assessment**	**Supervisor review**	**Action Plan**
3a	Checks patient's identity and patient's records prior to vaccination to ascertain previous immunisation history and which vaccines are required e.g., to bring patient up to date with national schedule, for planned travel, for specific identified risk, post-exposure prophylaxis, etc.			
3b	Can explain which vaccines are to be given and able to answer parent's/carer's questions, referring to leaflets and other media e.g., videos to aid explanations/ discussion as appropriate and using translated and easy read leaflets or other media such as video or interpreter, if necessary, to ensure-parent/carer is informed. Knows who to refer to or who to contact if further detail or advice is required.			
3c	Able to discuss the risks and benefits of vaccination clearly and confidently and address any concerns parents/carers may have.			
3d	Aware of, and able to discuss, any current issues, controversies or misconceptions surrounding immunisation.			
3e	Demonstrates knowledge of consent requirements and the particular issues relevant to the area of practice, such as the parents/carer's capacity to consent, Mental Capacity Act/Mental Health Act and the age of the parent, if appropriate Gillick competence. Ensures informed consent is obtained prior to vaccination and is appropriately documented.			
3f	Demonstrates knowledge and understanding of contraindications and precautions and is able to assess appropriately for these or, if necessary, the need to postpone vaccination.			
3g	Checks that the vaccine has been appropriately prescribed via a Patient Specific Direction (PSD) or is authorised to be supplied and/or administered via a Patient Group Direction (PGD).			
3h	Checks the presentation of vaccine products, the expiry date, how they have been stored prior to use and prepares them according to the manufacturers description in the vaccine's summary of product characteristics (SmPC) or regulatory information.			

<table>
<tr><td>3i</td><td>Positions patient appropriately and chooses appropriate vaccination site(s) e.g., use of anterior lateral aspect of the thigh in babies under one year for injectable vaccines. Able to identify appropriate anatomical markers for the correct injection site.</td><td></td><td></td><td></td></tr>
<tr><td>3j</td><td>Chooses the correct administration route for the vaccine(s) to be delivered.</td><td></td><td></td><td></td></tr>
<tr><td>3l</td><td>Demonstrates correct intramuscular technique for injected vaccines</td><td></td><td></td><td></td></tr>
<tr><td>3n</td><td>Demonstrates correct oral technique e.g., for administration of live rotavirus vaccine to babies.</td><td></td><td></td><td></td></tr>
<tr><td>3o</td><td>Demonstrates an understanding of practice/clinic procedures for the reporting of vaccine reactions and knows how and when to report using the Medicines and Healthcare Products Regulatory Authority's (MHRA) Yellow Card Scheme.</td><td></td><td></td><td></td></tr>
<tr><td>3p</td><td>Completes all necessary documentation accurately, recording type and product name of vaccine, batch number, expiry date, dose administered, site(s) used, date given and name and signature.</td><td></td><td></td><td></td></tr>
<tr><td>3q</td><td>Demonstrates good record keeping and understands the importance of making sure vaccine information is recorded on GP data system, reported to local Child Health Information System (CHIS), in the Personal Child Health Record (PCHR), and the use of appropriate methods for reporting unscheduled vaccinations or where vaccines are given outside of GP premises</td><td></td><td></td><td></td></tr>
<tr><td>3r</td><td>Advises parent/carer on potential postvaccination reactions as appropriate (e.g., rash, fever) the timing and management of these. Provides parent/carer with a copy of post-immunisation advice sheet such as the NHS leaflet 'What to expect after vaccination', the product's patient information leaflet and any translated information where available and appropriate.</td><td></td><td></td><td></td></tr>
<tr><td>3s*</td><td>Aware that rotavirus vaccine to hospitalised infants, is likely to carry a low risk for transmission of the vaccine virus if standard infection control precautions are maintained (*UK HAS, 2015)</td><td></td><td></td><td></td></tr>
<tr><td>3t*</td><td>Aware that infants born at ≤ 28 weeks of gestation who are in hospital should have respiratory monitoring for 48-72 hrs when given their first immunisations. If the infant has apnoea, bradycardia or desaturations after the first immunisations, the second immunisation should also be given in hospital, with respiratory monitoring.</td><td></td><td></td><td></td></tr>
<tr><td colspan="5">If an individual does not achieve competency within the timescale agreed between the supervisor and practitioner, a developmental plan should be agreed with clear timescales for further assessment, if these are not met then their suitability for the task should be reconsidered.</td></tr>
<tr><td colspan="2">Name of individual: ……………………………………………………………………has the appropriate knowledge, skill and competence to safely administer vaccines.</td><td colspan="3">Signature:

Date:</td></tr>
<tr><td colspan="2">Name of supervisor carrying out the assessment: ……………………………………………</td><td colspan="3">Signature:

Date:</td></tr>
</table>

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